

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2000-CE-59-AD; Amendment 39-13100; AD 2003-07-04]

RIN 2120-AA64

Airworthiness Directives; Air Tractor, Inc. Models AT-300, AT-400, AT-400A, AT-401, AT-401B, AT-402, AT-402A, AT-402B, AT-501, AT-502, and AT-502B Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that applies to certain Air Tractor, Inc. (Air Tractor) Models AT-300, AT-400, AT-400A, AT-401, AT-401B, AT-402, AT-402A, AT-402B, AT-501, AT-502, and AT-502B airplanes. This AD requires you to repetitively inspect the vertical fin front spar fitting for cracks and replace any cracked fitting found. This AD also requires you to install a steel doubler as a terminating action for the repetitive inspections. This AD is the result of a report of failure of a 1/4-inch thick vertical fin front spar fitting. The actions specified by this AD are intended to prevent failure of the vertical fin front spar fitting, which could result in failure of the rear spar fitting. Such failures could lead to loss of directional control of the airplane.

DATES: This AD becomes effective on May 22, 2003.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of May 22, 2003.

ADDRESSES: You may get the service information referenced in this AD from Air Tractor, Inc., PO Box 485, Olney, Texas 76374. You may view this information at the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 2000-CE-59-AD, 901 Locust, Room 506, Kansas City, Missouri 64106; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Andy McAnaul, Aerospace Engineer, FAA, Fort Worth Airplane Certification Office, 2601 Meacham Boulevard, Fort Worth, Texas 76193-0150; telephone: (817) 222-5156; facsimile: (817) 222-5960.

SUPPLEMENTARY INFORMATION:

Discussion

What Events have Caused This AD?

The FAA received reports of two incidents, one in 1994 and one in 1995, in which the vertical fin front spar fitting and rear spar fitting failed, while in flight, on an Air Tractor Model AT-402 and a Model AT-502 airplane. Failure of the vertical fin front spar fitting causes the rear spar fitting to fail. These failures result in the vertical tail lying over against the elevator creating difficulty in controlling the airplane.

These vertical fin front spar fittings were made of 3/16-inch thick aluminum. Investigation revealed that Air Tractor models with the 3/16-inch front spar attach plates installed were subject to fatigue failure.

This unsafe condition was addressed in AD 95-20-06, Amendment 39-9384. AD 95-20-06 applied to airplanes with 3/16-inch thick and 1/4-inch thick aluminum fin front spar fittings installed.

In 1997, we issued AD 97-14-05, Amendment 39-10063, that supersedes AD 95-20-06. Further investigation revealed that only Air Tractor models with a 3/16-inch thick fin front spar fitting installed were developing cracks. Therefore, we issued AD 97-14-05 to remove Air Tractor models with a 1/4-inch thick fin front spar fitting installed from the applicability.

Recently, a Model AT-502 airplane was found with a cracked 1/4-inch thick fin front spar fitting. The crack was found during a routine inspection. The rear spar had not yet failed. This recent finding demonstrates that Air Tractor models with a 1/4-inch thick fin front spar fitting are subject to fatigue failure.

What Is the Potential Impact if FAA Took No Action?

This condition, if not detected and corrected, could result in structural failure of the vertical fin front spar fitting and eventually the rear spar fitting. Such failure could result in loss of directional control of the airplane.

Has FAA Taken Any Action to This Point?

We issued a proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to certain Air Tractor Models AT-300, AT-400, AT-400A, AT-401, AT-401B, AT-402, AT-402A, AT-402B, AT-501, AT-502, and AT-502B airplanes. This proposal was published in the Federal Register as a notice of proposed rulemaking (NPRM) on December 27, 2002 (67 FR 79008). The NPRM proposed to require you to repetitively inspect the vertical fin front spar fitting for cracks and replace any cracked fitting found. The NPRM also proposed to require you to install a steel doubler as a terminating action for the repetitive inspections.

Was the Public Invited To Comment?

The FAA encouraged interested persons to participate in the making of this amendment. The following presents the comment received on the proposal and FAA's response:

Comment Issue: Change the Serial Number Applicability for Certain Affected Airplane Models

What Is the Commenter's Concern?

The commenter states that the serial number affectivity for Air Tractor Models AT-401 and AT-401B should include the notation that specifically designates serial numbers that have been converted to turbine powerplants as specified in Snow Engineering Co. Service Letter #155, Revised November 27, 2002.

What Is FAA's Response to the Concern?

We concur with the commenter and will change the final rule AD action to incorporate this change.

FAA's Determination

What Is FAA's Final Determination on This Issue?

We carefully reviewed all available information related to the subject presented above and determined that air safety and the public interest require the adoption of the rule as proposed except for the changes discussed above and minor editorial corrections. We have determined that these changes and minor corrections:

- Provide the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

How Does the Revision to 14 CFR Part 39 Affect This AD?

On July 10, 2002, FAA published a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs FAA's AD system. This regulation now includes material that relates to special flight permits, alternative methods of compliance, and altered products. This material previously was included in each individual AD. Since this material is included in 14 CFR part 39, we will not include it in future AD actions.

Cost Impact

How Many Airplanes Does This AD Impact?

We estimate that this AD affects 440 airplanes in the U.S. registry.

What Is the Cost Impact of This AD on Owners/Operators of the Affected Airplanes?

We estimate the following costs to accomplish the inspection:

Labor cost	Parts cost	Total cost per airplane	Total cost on U.S. operators
4 workhours x \$60 = \$240	No parts required	\$240	\$240 x 440 = \$105,600

We estimate the following costs to accomplish the modification:

Labor cost	Parts cost	Total cost per airplane
7 workhours x \$60 = \$420	Parts will be provided by Air Tractor at no charge to the customer.	\$420

Regulatory Impact

Does This AD Impact Various Entities?

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

Does This AD Involve a Significant Rule or Regulatory Action?

For the reasons discussed above, I certify that this action (1) Is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the final evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. FAA amends § 39.13 by adding a new AD to read as follows:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC



U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2003-07-04 Air Tractor, Inc.: Amendment 39-13100; Docket No. 2000-CE-59-AD.

(a) *What airplanes are affected by this AD?* This AD affects the following airplane models and serial numbers that are certificated in any category:

Model	Serial Nos.
AT-300, AT-400, and AT-400A	All serial numbers with a turbine powerplant and is retrofitted with a $\frac{1}{4}$ inch thick aluminum vertical fin front spar fitting and an all-metal rudder.
AT-401 and AT-401B	401-0737 through 401-1015 and 401B-0737 through 401B-1015 that have been converted to turbine powerplants.
AT-402, AT-402A, and AT-402B	402-0737 through 402B-1015.
AT-501	501-0031 and subsequent that have been converted to turbine powerplants.
AT-502 and AT-502B	502-0031 through 502B-0398.

(b) *Who must comply with this AD?* Anyone who wishes to operate any of the airplanes identified in paragraph (a) of this AD must comply with this AD.

(c) *What problem does this AD address?* The actions specified by this AD are intended to prevent failure of the vertical fin front spar fittings, which could result in failure of the rear spar fitting. Such failures could lead to loss of directional control of the airplane.

(d) *What actions must I accomplish to address this problem?* To address this problem, you must accomplish the following:

Actions	Compliance	Procedures
(1) Inspect the vertical fin front spar fitting for cracks.	Upon the accumulation of 2,000 hours time-in-service (TIS) on the vertical fin front or spar fitting next 100 hours TIS after May 22, 2003 (the effective date of this AD), whichever occurs later. If no cracks are found, repetitively inspect thereafter at intervals not to exceed 100 hours TIS.	In accordance with Snow Engineering Co. Service Letter #155, Revised November 27, 2002.
(2) If cracks are found during any inspection required in paragraph (d)(1) of this AD, replace the vertical fin front spar fitting.	Prior to further flight after the crack is found. Continue with the repetitive inspection requirements in paragraph (d)(1) of this AD until the terminating action is accomplished.	In accordance with Snow Engineering Co. Service Letter #155, Revised November 27, 2002.

(3) Modify the vertical fin front spar fitting by installing a steel doubler.	Within the next 2,000 hours TIS after May 22, 2003 (the effective date of this AD). Installing the steel doubler is considered terminating action for the repetitive inspection requirements of this AD. The installation may be accomplished at any time provided the vertical fin front spar fitting is crack free.	In accordance with Snow Engineering Co. Service Letter #155, Revised November 27, 2002.
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(e) *Can I comply with this AD in any other way?* To use an alternative method of compliance or adjust the compliance time, use the procedures in 14 CFR 39.19. Send these requests to the Manager, Ft. Worth Aircraft Certification Office (ACO). For information on any already approved alternative methods of compliance, contact Andy McAnaul, Aerospace Engineer, FAA, Fort Worth Airplane Certification Office, 2601 Meacham Boulevard, Fort Worth, Texas 76193-0150; telephone: (817) 222-5156; facsimile: (817) 222-5960.

(f) *Are any service bulletins incorporated into this AD by reference?* Actions required by this AD must be done in accordance with Snow Engineering Co. Service Letter #155, Revised November 27, 2002. The Director of the Federal Register approved this incorporation by reference under 5 U.S.C. 552(a) and 1 CFR part 51. You may get copies from Air Tractor, Inc., P.O. Box 485, Olney, Texas 76374. You may view copies at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri, or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(g) *When does this amendment become effective?* This amendment becomes effective on May 22, 2003.

Issued in Kansas City, Missouri, on March 25, 2003.
Michael Gallagher,
Manager, Small Airplane Directorate, Aircraft Certification Service.
[FR Doc. 03-7747 Filed 4-2-03; 8:45 am]
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